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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,412	02/17/2004	Robert A. Handly	HandlyRA-004	1299

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EXAMINER	
BEX, PATRICIA K	
ART UNIT	**PAPER NUMBER**
1743	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/780,412	HANDLY, ROBERT A.	
	Examiner	Art Unit	
	P. Kathryn Bex	1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 May 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☒ Claim(s) *16-20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: the specification contains the misspelled word "fluropolymer" (see for example last line on page 10, line 4 of specification.) All recitations of "fluropolymer" should be replaced with --fluoropolymer--.

Appropriate correction is required.

Claim Objections

2. Claims 16-20 are objected to because of the following informalities: claim 16, line 5, recites "tubular space" , this should be --tubular spacer--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. The phrase "close enough" in the above referenced claims is a relative prhase which renders the claims indefinite. The phrase "close enough" is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the

scope of the invention. What does Applicant consider tolerances "close enough" to provide a friction fit? Clarification is respectfully requested.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-15 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Luckey (US Patent No. RE.27,008).

Luckey teaches a thermal desorption tube 11, comprising a glass outer barrel 22 which is fire polished (col. 2, lines 35-43), a plurality of spacers 17A-D made from a glass material (i.e., glass grit; col. 2, lines 59-60) which conform to the barrel thereby forming "tubular spacer". The spacers of Luckey are insertably positioned within the outer barrel at the first and second, respectively. The spacers of Luckey support the sorbent material 16A-C. Luckey also teaches two glass wool plugs 19 positioned within the tube (claim 9).

The Office has interpreted claims 1,3-4, 7-8 and 12-14 as product-by-process claims, since a product-by-process claim is one in which the structural scope of the product is defined at least in part in terms of the method or process by which it is made.

For example, the thermal desorption tube (end product) of claim 1 is defined by the following steps, "a centerless ground tubular outer barrel which is centerless ground to said centerless grinding tolerance" and, "...said at least one tubular inner spacer being secured to said first end of said centerless ground outer barrel in a manner which does not alter said centerless grinding tolerance so that said first end of said centerless ground outer barrel is insertable into said fitting for providing said seal with said fitting..."

Applicant is reminded that the product-by-process claim is always drawn to a product, not the process. The reference need only to *substantially meet* the structure of the end product. As set forth above, the desorption tube of Luckey meets the entire structural requirements of the desorption tube as set forth in the instant claims. Furthermore, since the spacers 17A-17D and the outer barrel 22 are both made from a glass material, it is reasonable to expect that the spacer and outer barrel will fuse together by heating in a manner similar to that described in col. 2, lines 39-44. Thus, the desorption tube of Luckey is made by a process substantially identical to the product-by-process limitations set forth in claims 3, 4, 8, 12-15

Please note that an argument that the applied reference fails to meet all claimed process steps/limitations of making the product does not overcome a proper 102/103 rejection because the reference need only to *substantially meet* the structure of the end

product, see MPEP 2113 [R-1] and *In re Fessmann*, 489 F.2d 742, 744 180 USPQ 324, 326 (CCPA 1974).

8. Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Handly, (US Patent Pub. No. 2004/0161856).

9. The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Handly teaches a thermal desorption tube 22, comprising a glass outer barrel 23, see paragraph [0040], a plurality of spacers 52, 54 made from a material which is the same material than the tube, see paragraph [0040]. The spacers are insertably positioned within the outer barrel at the first and second end, respectively. The spacers of Handly support the sorbent material 40. Handly also teaches two glass wool plugs positioned within the tube [see end of paragraph 0039].

As discussed above, the Office has interpreted claims 1,3-4, 7-8 and 12-14 as product-by-process claims, since a product-by-process claim is one in which the structural scope of the product is defined at least in part in terms of the method or process by which it is made. Arguments that the applied reference fails to meet all

claimed process steps/limitations of making the product does not overcome a proper 102/103 rejection because the reference need only to *substantially meet* the structure of the end product.

The desorption tube of Handly meets the entire structural requirements of the desorption tube as set forth in the instant claims. Furthermore, since the spacers 52, 54 and the outer barrel 23 are both made from a glass material, it is reasonable to expect that the spacer and outer barrel will fuse together by heating in a manner similar to that described in paragraph [0040] of Handly. Thus, the desorption tube of Handly is made by a process substantially identical to the product-by-process limitations set forth above.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luckey (US Patent No. RE.27,008) in view of Asbridge (US Patent No. 2,023,720).

The teachings of Luckey have been summarized previously, s*upra*. Luckey teaches a method of making a desorption tube comprising, inserting the glass grit spacers 17A-D into the barrel, resulting in them being mounted at one end of the barrel and inserting sorbent material 16 into the tubular member. Furthermore Luckey teaches a flame treating (i.e., heat treating) the ends so that tube has no rough or sharp edges around the openings (col 2, lines 35-44). It is inherent in Luckey that the glass grit spacers and the glass barrel of the tube would fuse if heated simultaneously by the flame method described to a point where the glass reaches its softening temperature.

However, Luckey fails to disclose the step of centerless grinding the combination of the first inner tubular spacer and outer barrel within a centerless grinding tolerance. However, the use of centerless grinding in the analytical art is well known, see Asbridge. Asbridge teaches a process of centerless grinding a cylindrical tube within a centerless grinding tolerance (see col. 1, lines -45; Fig). Please note, that the claims do not require the ends (first end, second end) of the tube be centerlessly ground, rather just the outer surface along the longitudinal axis of the tube.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include in Luckey the step of centerless grinding the combination the barrel containing the tubular spacer, as set forth in Asbridge, since the process consistently produces containers with a wall of uniform thickness which may be desirable for uniform heating along the cylindrical axis of the tube.

13. Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Handly (US Patent Pub. No. 2004/0161856) in view of Asbridge (US Patent No. 2,023,720).

The teachings of Handly have been summarized previously, *supra*. As discussed above, Handly does teach a method of making a desorption tube comprising, inserting glass tubular spacers 52, 54 into the barrel, inserting sorbent material 16 into the tubular member. Moreover, Handly teaches permanently affixing the tubular members to the inner cylindrical surface of the tube by heat welding (see end of paragraph [0040]). It is inherent in Handly that the glass tubular spacers and the glass barrel of the tube would fuse if heated simultaneously by the heat welding.

However, Handly fails to disclose the step of centerless grinding the combination of the first inner tubular spacer and outer barrel within a centerless grinding tolerance. However, the use of centerless grinding in the analytical art is well known, see Asbridge. Asbridge teaches a process of centerless grinding a cylindrical tube within a centerless grinding tolerance (see col. 1, lines -45; Fig). Please note, that the claims do not require the ends (first end, second end) of the tube be centerlessly ground, rather just the outer surface concentric with the cylindrical axis of the tube.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include in Handly the step of centerless grinding the combination the barrel containing the tubular spacer, as set forth in Asbridge, since the

process consistently produces containers with a wall of uniform thickness which may be desirable for uniform heating along the cylindrical axis of the tube.

Double Patenting

14. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

15. Claims 1-15 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 10/717,810 to Handly (hereinafter '810). Although the conflicting claims are not identical, they are not patentably distinct from each other because both teach a thermal desorption tube comprising: an outer barrel, one or more inner spacers mounted or positioned in the outer barrel, and a sorbent material positioned within the outer barrel.

Copending application '810 does not recite the inner spacer as tubular. However, it would have been obvious to a person of ordinary skill in the art to make the inner spacer of the instant invention tubular to better conform to the inner surface of the outer barrel. Furthermore, it has been held that a change in configuration is an obvious matter of design choice absent persuasive evidence that the particular configuration of the claimed limitation was significant, see MPEP 2144.04 and *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966)

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

16. No claims allowed.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to P. Kathryn Bex whose telephone number is 571-272-2374. The examiner can normally be reached on Monday thru Thursday, 9 AM to 6 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

P. Kathryn Bex
Examiner
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pkb

Jill Warden
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